

AMENDMENTS TO THE DRAWINGS:

Please cancel original Figures 1, 3d, 4b, 5, 7a, 8a, and 8b in their entirety and replace them with the attached replacement drawings.

Attachments:

Replacement Drawings (Figures 1, 3d, 4b, 5, 7a, 8a, and 8b; 8 drawing sheets).

REMARKS:

Entry of the foregoing, reexamination and reconsideration of the subject application, as amended, pursuant to and consistent with 37 C.F.R. §1.112, are respectfully requested in light of the remarks which follow.

I. Amendments to the Specification

By the foregoing amendments to the specification, the specification has been amended by replacing the sequence listing with a new corrected sequence listing.

II. Amendments to the Drawings

By the foregoing amendments to the drawings, the drawings have been amended by replacing Figures 1, 3d, 4b, 5, 7a, 8a, and 8b with new corrected figures.

III. Amendments to the Claims

By the foregoing amendments to the claims, claims 1, 4 and 7 have been amended, and claims 2, 3 and 9-12 have been canceled. Specifically, claims 1 and 7 have been amended to recite the peptide of claim 3. Claim 4 has been amended to depend from claim 1 rather than from claim 3.

The amendments to the claims, including cancellation of claims, have been made without prejudice or disclaimer to any subject matter recited or canceled herein. Applicants reserve the right to file one or more continuation and/or divisional applications directed to any canceled subject matter. No new matter has been added, and entry of the foregoing amendments of the above-identified application are respectfully requested.

IV. Response to Objection to the Drawings

At page 2 of the Office Action, Figs. 3d, 7a, 8a, and 8b have been objected to for purportedly being illegible.

In response, Applicants have provided legible replacement drawing sheets for these figures. Accordingly, Applicants respectfully request reconsideration and withdrawal of this objection.

V. Response to Sequence Listing Objection

At pages 3 and 4 of the Office Action, the application has been objected to for allegedly failing to comply with the Sequence Listing requirements under 37 C.F.R. §§ 1.821(a)(1) and (a)(2).

Specifically, the Examiner has noted that Figs. 1, 4b, and 5 include nucleotide and/or amino acid sequences that are not associated with sequence identifiers (SEQ ID NOs).

In response, Applicants have provided a corrected sequence listing, including the sequences shown in Figs. 1, 4b, and 5. In addition, the figures have been amended to include the corresponding sequence identifiers. Thus, reconsideration and withdrawal of the sequence listing objection is respectfully requested.

VI. Response to Claim Rejections Under 35 U.S.C. § 112, second paragraph, and 35 U.S.C. § 101

At page 3 of the Office Action, claims 11 and 12 have been rejected under 35 U.S.C. § 112, second paragraph, as purportedly indefinite for reciting a use without reciting any active, positive steps delimiting how the use is actually practiced. Claims 11 and 12 have also been rejected under 35 U.S.C. § 101, because the claimed recitation of a use, without

setting forth any steps involved in the process, results in an improper definition of the process.

Claims 11 and 12 have been canceled, rendering these rejections moot.

V. Response to Claim Rejections Under 35 U.S.C. § 112, First Paragraph – Written Description

(i) At pages 4 and 5 of the Office Action, claims 1, 2 and 7-12 have been rejected under 35 U.S.C. § 112, first paragraph, as purportedly failing to comply with the written description requirement.

Specifically, the Examiner has acknowledged that the specification adequately describes SEQ ID NOs: 11-26 and peptides comprising an amino acid sequence represented by (I, D, E or K)-(E, A or Q)-L-(L, R or A)-(N, D or S)-(A, L, K or I)-(L or Y)-(R, N, L or K)-(Y or N)-H-(M, I or G)-(V, L, Q or G)-(G, K, T or D)-(R, S, L or E)-(R, A, E or I)-(V, M, T or L)-(L, C or V)-(T, A, G or S) (*i.e.*, claim 3). However, the Examiner has stated that the claimed genus is much broader than this well-defined subgenus, and includes too many undefined structural features for the skilled artisan to know which sequences within the scope of the claims possess the desired functional characteristics.

To expedite prosecution in the present application and not to acquiesce to the Examiner's rejection, claim 1, as noted above, has been amended to recite the amino acid sequence of claim 3. Because claim 3 was not included in the written description rejection, this amendment should be sufficient to overcome the rejection. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection.

(ii) At page 6 of the Office Action, the Examiner has stated that claims 7, 8, 10, and 12 are further rejected as failing to meet the written description requirement, because the claims are drawn to methods and pharmaceutical compositions for the treatment and prevention of angiogenesis-related diseases. According to the Examiner, the specification fails to describe methods of treating and preventing angiogenesis-related diseases. This rejection is respectfully traversed.

To expedite prosecution in the present application and not to acquiesce to the Examiner's rejection, claim 7, as noted above, has been amended by deleting the term "preventing." In addition, claims 10 and 12 have been canceled, rendering the rejection moot with regard to these claims.

Applicants note that the specification clearly describes methods for the treatment of angiogenesis-related diseases, comprising administering to a subject in need thereof an effective amount of the recited peptide (*see, e.g.*, pages 12-15 and Examples 36-41). The Examiner's position, as set forth in the enablement rejection (addressed below), appears to be that the recited methods may not be effective. However, the Examiner does not appear to have presented any reasoning that is relevant to a written description rejection. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection.

VI. Response to Claim Rejections Under 35 U.S.C. § 112, First Paragraph – Enablement

At pages 6-9 of the Office Action, claims 7, 8, 10 and 12 have been rejected under 35 U.S.C. § 112, first paragraph, as purportedly lacking enablement.

Specifically, the Examiner has stated that the specification does not provide any examples of antiangiogenic compounds that have been successfully used to treat or prevent

angiogenesis-related diseases, or any evidence that the claimed compounds can be used to treat or prevent an angiogenesis-related disease. This rejection is respectfully traversed.

As noted above, claim 7 has been amended by deleting the term "preventing," and claims 10 and 12 have been canceled.

With regard to the claims as amended, Applicants submit that a person of ordinary skill in the art would have reasonably predicted, based on the specification and the art, that the peptides recited in the present claims would be useful for treating angiogenesis-related diseases. In particular, the Matrigel Plug assay results set forth in Examples 8-2 and described at pages 35-36 of the specification demonstrate that the YH18 synthetic peptide according to the present invention suppresses angiogenesis, indicating that the synthetic peptide suppresses angiogenesis in cancer cells. Furthermore, the examples at pages 36-41 show that the inventive peptide can be used to treat angiogenesis-related diseases. Finally, Applicants submit herein a Declaration of Dr. Kang; the experiments detailed in the Declaration show that in a mouse model the inventive peptide can be used to treat arthritis. Applicants submit that it is reasonable to expect the recited peptide to be as useful for treating other angiogenesis related diseases as it is for treating arthritis.

Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection.

VII. Response to Claim Rejections Under 35 U.S.C. § 102

(i) At pages 9 and 10 of the Office Action, claims 9 and 10 have been rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Kim et al. (J. Biol. Chem. 277:46159-65 (2002)).

Claims 9 and 10 have been canceled, thus rendering this rejection moot.

(ii) At pages 10 and 11 of the Office Action, claims 1, 2 and 7-12 have been rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Weissbach et al. (WO 99/46282).

As noted above, claim 1 has been amended to recite the amino acid sequence of claim 3. Because claim 3 was not included in the 35 U.S.C. § 102(b) rejection over Weissbach et al., this amendment should be sufficient to overcome the rejection. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection.

VIII. Response to Double Patenting Rejection

At pages 11 and 12 of the Office Action, claims 1-12 have been provisionally rejected on the ground of non-statutory obviousness-type double patenting as allegedly being unpatentable over claims 1-6, 8-13 and 16 of copending application No. 11/578,463.

This rejection is a provisional rejection only, because the allegedly conflicting claims have not yet been allowed. Applicants will consider filing one or more Terminal Disclaimers, if appropriate, once allowable subject matter is determined.


CONCLUSION:

In view of the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order. Such action is earnestly solicited.

In the event that there are any questions relating to this Amendment and Reply, or the application in general, it would be appreciated if the Examiner would telephone the undersigned attorney concerning such questions so that prosecution of this application may be expedited.

Respectfully submitted,

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